CLAIM AMENDMENTS:

1-8 cancelled

9. (currently amended) A network system, the system comprising:

an interconnecting network;
a reference network node communicating with said interconnecting network, said reference node having a reference node communication time schedule; and
a plurality of network nodes coupled to said interconnecting network, said network nodes each being adapted to detect, before integration as an active network node, whether or not there is any activity of other network nodes and, if no activity is detected, to assign itself as said reference network node and to transmit position messages predetermined in a communication schedule to other network nodes, and each network node is adapted to select, if activity is detected, a network node from which a position message is received as said reference network node and to adjust its local communication time schedule to said reference node communication time schedule, wherein each network node is adapted to integrate as an active network node in case of a positive result of an agreement check between said local communication time schedule and communication time schedules of at least a part of active network nodes.

10. (previously presented) The network system of claim 9, wherein each network node is adapted for examination of whether its local communication time schedule coincides with communication time schedules of at least part of said active network nodes and for

counting agreements and deviations, wherein each network node is adapted for integration as an active network node only when a number of agreements is larger than a number of deviations.

11. (previously presented) The network system of claim 10, wherein each network node, for examination as to whether its said local communication time schedule coincides with the communication time schedules of at least part of said active network nodes, is provided with a time interval, in which all position messages of said active network nodes can be transmitted at least once.

12. (previously presented) The network system of claim 9, wherein, after detection of no activity, a network node to be integrated is adapted to examine whether a further network node attempts to integrate itself as said reference network node.

13. (previously presented) The network system of claim 12, wherein, after detection of no activity, a network node to be integrated is adapted to transmit a collision message.

14. (previously presented) The network system of claim 12, wherein during examination for integration as a reference network node, each network node is adapted to initially transmit its own position message, to count incoming position messages, and to be integrated as said reference network node only if a number of correctly received position messages is larger than a number of the incorrectly received position messages.

15. (currently amended) A network node in a network system, the system comprising:

an interconnecting network;
a reference network node communicating with said interconnecting network, said reference node having a reference node communication time schedule; and
a plurality of network nodes coupled to said interconnecting network, said network nodes each being adapted to detect, before integration as an active network node, whether or not there is any activity of other network nodes and, if no activity is detected, to assign itself as said reference network node and to transmit position messages predetermined in a communication schedule to other network nodes, and, if activity is detected, to select a network node from which a position message is received as said reference network node and to adjust its local communication time schedule to said reference node communication time schedule, wherein each network node is adapted to integrate as an active network node in case of a positive result of an agreement check between said local communication time schedule and communication time schedules of at least part of active network nodes.

16. (currently amended) A method for integrating a network node as an active network node in a network system, the network system having a reference network node and an interconnecting network for connecting together a plurality of network nodes and the reference network node, the method comprising the steps of:

a) detecting, before integrating as an active network node, whether or not there is any activity of other network nodes;

b) if no activity is detected in step a), transmitting position messages predetermined in a communication time schedule to other network nodes;

c) if activity is detected in step a), selecting a network node from which a position message is received as said reference network node and adjusting a local communication time schedule to said reference network node based on receipt of position messages from said reference network node;

d) testing for agreement between the local communication time schedule and communication time schedules of at least part of active network nodes; and

e) integrating into the network system as an active network node if step d) yields a positive result.